

CAT Data Interpretation & Logical Reasoning

Sample Paper – 14

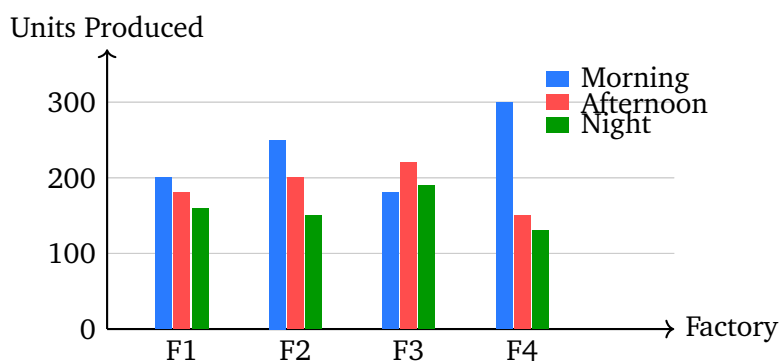
Duration: 40 Minutes**Maximum Marks:** 60

Instructions

- This paper contains **20 questions** across **4 sets** (2 Data Interpretation + 2 Logical Reasoning).
- Marking scheme: **+3** marks for each correct answer, **–1** mark for each wrong answer, **0** for unattempted questions.
- All questions are **single-correct MCQ**.
- **No personal calculators** are allowed; an on-screen calculator is provided.
- Rough sheets will be provided at the test centre.

Set A: Data Interpretation — Factory Shift Production (Q1 – Q5)

The grouped bar chart below shows the units produced by four factories (F1, F2, F3, F4) across three shifts (Morning, Afternoon, Night). Study the chart carefully and answer questions 1–5.



1. What is the total production across all factories and all shifts?

- (A) 2,200 units
- (B) 2,250 units
- (C) 2,290 units
- (D) 2,310 units



2. Which factory had the highest total production?
- (A) F2 (600 units)
 - (B) F3 (590 units)
 - (C) F4 (580 units)
 - (D) F1 (540 units)
3. Which shift had the LOWEST total production across all factories?
- (A) Afternoon (750 units)
 - (B) Night (630 units)
 - (C) Morning (930 units)
 - (D) Morning and Afternoon were equal
4. What was F4's Afternoon production?
- (A) 130 units
 - (B) 140 units
 - (C) 150 units
 - (D) 200 units
5. What was F3's total production across all three shifts?
- (A) 560 units
 - (B) 570 units
 - (C) 580 units
 - (D) 590 units

Set B: Data Interpretation — Student Examination Marks (Q6 – Q10)

The table below shows the marks scored by five students in four subjects. Each subject is out of 100 marks (maximum total = 400). Study the table carefully and answer questions 6–10.



Student	Math	Science	English	History	Total
Asha	85	78	72	65	300
Bala	70	82	68	80	300
Chetan	92	75	80	55	302
Divya	65	88	75	72	300
Elena	78	68	90	70	306

6. Who scored the highest marks in Mathematics?
- (A) Chetan (92)
(B) Asha (85)
(C) Elena (78)
(D) Bala (70)
7. How many students scored ABOVE 80 in Science?
- (A) 1
(B) 2
(C) 3
(D) 0
8. Who scored the LOWEST marks in History?
- (A) Asha (65)
(B) Elena (70)
(C) Chetan (55)
(D) Divya (72)
9. What was the TOTAL class score in English across all 5 students?
- (A) 360
(B) 370
(C) 380
(D) 385
10. Who had the HIGHEST total marks?



- (A) Elena (306)
- (B) Chetan (302)
- (C) Asha (300)
- (D) Bala (300)

Set C: Logical Reasoning — Meeting Room Scheduling (Q11 – Q15)

Five meetings M1–M5 are scheduled in five time slots (9am, 10am, 11am, 12pm, 1pm), each in a different room (R1–R5). The following conditions apply:

- (i) M1 is scheduled at 9am.
- (ii) M3 is scheduled immediately after M2.
- (iii) M4 is held in Room R3.
- (iv) M5 is scheduled at 1pm.
- (v) M2 is at 11am (so M3 is at 12pm).
- (vi) M1 is in Room R1.
- (vii) M5 is in Room R5.
- (viii) M2 is in Room R2.

Time Slot	Meeting	Room
9am	M1	R1
10am	M4	R3
11am	M2	R2
12pm	M3	R4
1pm	M5	R5

11. Which meeting is scheduled at 10am?

- (A) M1
- (B) M4
- (C) M2
- (D) M3



12. In which room is M3 held?

- (A) R2
- (B) R3
- (C) R4
- (D) R5

13. At what time is M2 scheduled?

- (A) 9am
- (B) 10am
- (C) 12pm
- (D) 11am

14. Which meeting is held at 12pm?

- (A) M3
- (B) M4
- (C) M5
- (D) M2

15. If M4 and M2 swap their time slots, at what time would M4 be scheduled?

- (A) 9am
- (B) 11am
- (C) 12pm
- (D) 1pm

**Set D: Logical Reasoning —
Coded Language (Q16 – Q20)**

In a certain code language, the following coding rules are observed:

- “RED BLUE” is coded as “KL MN”
- “BLUE GREEN” is coded as “MN OP”
- “GREEN YELLOW” is coded as “OP QR”



- “YELLOW RED” is coded as “QR KL”

Word	Code
RED	KL
BLUE	MN
GREEN	OP
YELLOW	QR

16. What is the code for “RED”?

- (A) MN
- (B) OP
- (C) KL
- (D) QR

17. What does “QR” represent?

- (A) RED
- (B) BLUE
- (C) GREEN
- (D) YELLOW

18. What is the decoded meaning of “MN OP”?

- (A) BLUE GREEN
- (B) RED BLUE
- (C) GREEN YELLOW
- (D) YELLOW RED

19. If “WHITE” is coded as “ST”, what is the code for “BLUE WHITE”?

- (A) KL ST
- (B) MN ST
- (C) OP ST
- (D) QR ST



20. Which colour is coded as “OP”?

- (A) RED
- (B) YELLOW
- (C) GREEN
- (D) BLUE



Detailed Solutions

1.

Solution**Concept:** Reading and summing values from a grouped bar chart.**Steps:**

- F1 total: $200 + 180 + 160 = 540$
- F2 total: $250 + 200 + 150 = 600$
- F3 total: $180 + 220 + 190 = 590$
- F4 total: $300 + 150 + 130 = 580$
- Grand total: $540 + 600 + 590 + 580 = 2,310$ units

Why wrong options fail:

- (A) 2,200 and (B) 2,250 undercount the data.
- (C) 2,290 is 20 short of the correct total.

Final Answer $\Rightarrow$ DAnswer: (D) [Go Back to Q 1](#)

2.

Solution**Concept:** Comparing factory totals to find the maximum.**Steps:**

- $F1 = 540, F2 = 600, F3 = 590, F4 = 580$
- Maximum is F2 with 600 units.

Why wrong options fail:

- (B) $F3 = 590 < 600$.
- (C) $F4 = 580 < 600$.
- (D) $F1 = 540 < 600$.

Final Answer $\Rightarrow$ A

Answer: (A) [Go Back to Q 2](#)

3.

Solution

Concept: Summing each shift's production across all factories.

Steps:

- Morning: $200 + 250 + 180 + 300 = 930$
- Afternoon: $180 + 200 + 220 + 150 = 750$
- Night: $160 + 150 + 190 + 130 = 630$
- Lowest is Night with 630 units.

Why wrong options fail:

- (A) Afternoon = $750 > 630$.
- (C) Morning = 930 is the highest, not lowest.
- (D) Morning and Afternoon were not equal.

Final Answer $\Rightarrow$ B

Answer: (B) [Go Back to Q 3](#)

4.

Solution

Concept: Direct data reading from the bar chart.

Steps:

- From the chart, F4's Afternoon bar corresponds to 150 units.

Why wrong options fail:

- (A) 130 is F4's Night production.
- (B) 140 does not correspond to any F4 value.
- (D) 200 is F2's Afternoon production.

Final Answer $\Rightarrow$ C



Answer: (C) [Go Back to Q 4](#)

5.

Solution

Concept: Summing all three shifts for a single factory.

Steps:

- F3: Morning = 180, Afternoon = 220, Night = 190
- Total = $180 + 220 + 190 = 590$ units

Why wrong options fail:

- (A) 560, (B) 570, (C) 580 all undercount F3's production.

Final Answer $\Rightarrow$ D

Answer: (D) [Go Back to Q 5](#)

6.

Solution

Concept: Identifying the maximum value in a column of the table.

Steps:

- Math scores: Asha = 85, Bala = 70, Chetan = 92, Divya = 65, Elena = 78
- Highest is Chetan with 92.

Why wrong options fail:

- (B) Asha = $85 < 92$.
- (C) Elena = $78 < 92$.
- (D) Bala = $70 < 92$.

Final Answer $\Rightarrow$ A

Answer: (A) [Go Back to Q 6](#)



7.

Solution**Concept:** Counting values satisfying a given condition.**Steps:**

- Science scores: Asha = 78, Bala = 82, Chetan = 75, Divya = 88, Elena = 68
- Students above 80: Bala (82) and Divya (88) $\Rightarrow$ 2 students.

Why wrong options fail:

- (A) 1 undercounts; two students exceed 80.
- (C) 3 is an overcount.
- (D) 0 is incorrect as two students scored above 80.

Final Answer $\Rightarrow$ BAnswer: (B) [Go Back to Q 7](#)

8.

Solution**Concept:** Identifying the minimum value in a column.**Steps:**

- History scores: Asha = 65, Bala = 80, Chetan = 55, Divya = 72, Elena = 70
- Lowest is Chetan with 55.

Why wrong options fail:

- (A) Asha = 65 $>$ 55.
- (B) Elena = 70 $>$ 55.
- (D) Divya = 72 $>$ 55.

Final Answer $\Rightarrow$ CAnswer: (C) [Go Back to Q 8](#)

9.

Solution**Concept:** Summing all values in the English column.**Steps:**

- English: Asha = 72, Bala = 68, Chetan = 80, Divya = 75, Elena = 90
- Total = $72 + 68 + 80 + 75 + 90 = 385$

Why wrong options fail:

- (A) 360, (B) 370, (C) 380 all fall short of the correct sum of 385.

Final Answer $\Rightarrow$ DAnswer: (D) [Go Back to Q 9](#)

10.

Solution**Concept:** Comparing total marks across all students.**Steps:**

- Totals: Asha = 300, Bala = 300, Chetan = 302, Divya = 300, Elena = 306
- Highest total is Elena with 306.

Why wrong options fail:

- (B) Chetan = $302 < 306$.
- (C) Asha = $300 < 306$.
- (D) Bala = $300 < 306$.

Final Answer $\Rightarrow$ AAnswer: (A) [Go Back to Q 10](#)

11.

Solution**Concept:** Deductive scheduling using given constraints.**Steps:**

- Conditions place M1 at 9am, M2 at 11am, M3 at 12pm, M5 at 1pm.
- The only remaining slot (10am) must be occupied by M4.

Why wrong options fail:

- (A) M1 is at 9am, not 10am.
- (C) M2 is at 11am, not 10am.
- (D) M3 is at 12pm, not 10am.

Final Answer $\Rightarrow$ BAnswer: (B) [Go Back to Q 11](#)

12.

Solution**Concept:** Assigning rooms using given and deduced constraints.**Steps:**

- $M1 \rightarrow R1$, $M2 \rightarrow R2$, $M4 \rightarrow R3$ (given), $M5 \rightarrow R5$ (given).
- Remaining room for M3 is R4.

Why wrong options fail:

- (A) R2 is M2's room.
- (B) R3 is M4's room.
- (D) R5 is M5's room.

Final Answer $\Rightarrow$ CAnswer: (C) [Go Back to Q 12](#)

13.

Solution**Concept:** Direct reading from given conditions.**Steps:**

- Condition (v) explicitly states M2 is at 11am.

Why wrong options fail:

- (A) 9am is M1's slot.
- (B) 10am is M4's slot.
- (C) 12pm is M3's slot.

Final Answer $\Rightarrow$ DAnswer: (D) [Go Back to Q 13](#)

14.

Solution**Concept:** Reading the schedule table directly.**Steps:**

- From the schedule: 12pm slot is occupied by M3 (since M2 is at 11am and M3 is immediately after).

Why wrong options fail:

- (B) M4 is at 10am.
- (C) M5 is at 1pm.
- (D) M2 is at 11am.

Final Answer $\Rightarrow$ AAnswer: (A) [Go Back to Q 14](#)

15.

Solution**Concept:** Conditional rescheduling — swapping two meetings' time slots.**Steps:**

- Original: M4 at 10am, M2 at 11am.
- After swap: M4 takes M2's original slot = 11am; M2 takes M4's original slot = 10am.

Why wrong options fail:

- (A) 9am is M1's slot (unchanged).
- (C) 12pm is M3's slot (unchanged).
- (D) 1pm is M5's slot (unchanged).

Final Answer $\Rightarrow$ BAnswer: (B) [Go Back to Q 15](#)

16.

Solution**Concept:** Decoding a coded language by finding common words across statements.**Steps:**

- "RED BLUE" $\rightarrow$ "KL MN" and "YELLOW RED" $\rightarrow$ "QR KL".
- RED appears in both; its code KL is common to both encoded pairs.
- Therefore RED = KL.

Why wrong options fail:

- (A) MN = BLUE.
- (B) OP = GREEN.
- (D) QR = YELLOW.

Final Answer $\Rightarrow$ CAnswer: (C) [Go Back to Q 16](#)

17.

Solution**Concept:** Matching code to word using the established code table.**Steps:**

- From “GREEN YELLOW” $\rightarrow$ “OP QR” and “YELLOW RED” $\rightarrow$ “QR KL”:
- YELLOW is common; QR appears in both $\Rightarrow$ QR = YELLOW.

Why wrong options fail:

- (A) RED = KL, not QR.
- (B) BLUE = MN, not QR.
- (C) GREEN = OP, not QR.

Final Answer $\Rightarrow$ DAnswer: (D) [Go Back to Q 17](#)

18.

Solution**Concept:** Decoding a two-word code using the established table.**Steps:**

- MN = BLUE; OP = GREEN.
- Therefore “MN OP” decodes to “BLUE GREEN”.

Why wrong options fail:

- (B) RED BLUE = “KL MN”, not “MN OP”.
- (C) GREEN YELLOW = “OP QR”, not “MN OP”.
- (D) YELLOW RED = “QR KL”, not “MN OP”.

Final Answer $\Rightarrow$ AAnswer: (A) [Go Back to Q 18](#)

19.

Solution**Concept:** Applying a new code assignment alongside an established code.**Steps:**

- From the table: BLUE = MN.
- Given new information: WHITE = ST.
- Therefore “BLUE WHITE” $\rightarrow$ “MN ST”.

Why wrong options fail:

- (A) KL = RED, not BLUE.
- (C) OP = GREEN, not BLUE.
- (D) QR = YELLOW, not BLUE.

Final Answer $\Rightarrow$ BAnswer: (B) [Go Back to Q 19](#)

20.

Solution**Concept:** Direct lookup from the decoded code table.**Steps:**

- From “BLUE GREEN” $\rightarrow$ “MN OP” and “GREEN YELLOW” $\rightarrow$ “OP QR”:
- GREEN appears in both; OP is common $\Rightarrow$ OP = GREEN.

Why wrong options fail:

- (A) RED = KL, not OP.
- (B) YELLOW = QR, not OP.
- (D) BLUE = MN, not OP.

Final Answer $\Rightarrow$ CAnswer: (C) [Go Back to Q 20](#)

Answer Key

Answer Key — CAT DILR Sample Paper 14									
1	D	2	A	3	B	4	C	5	D
6	A	7	B	8	C	9	D	10	A
11	B	12	C	13	D	14	A	15	B
16	C	17	D	18	A	19	B	20	C

Quick Reference:

Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	D	6	A	11	B	16	C
2	A	7	B	12	C	17	D
3	B	8	C	13	D	18	A
4	C	9	D	14	A	19	B
5	D	10	A	15	B	20	C

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